Institutions, Incentives, and the Politics of Growth Management

By

Antonio Fernando F. Tavares

Askew School of Public Administration and Policy
Florida State University
614C Bellamy Building
Tallahassee, FL 32306

And

Escola de Economia e Gestao
Universidade do Minho, Portugal
Gualtar – 4710 Braga

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Land use management is relevant to the discussion of environmental policy because regulation of land use and growth has been used as an instrument of environmentally concerned actors. More generally, growth management policy is best characterized as regulatory, because state and local governments use public policy to direct private behavior (Feiock, 1994). It is appropriate to note however that, the consequences of growth management are inherently distributive. Molotch (1976) depicted a city as an aggregate of competing land-based interests. Decisions regarding growth, at the local or any other level, are then decisions of who gets what, where, and how (Lasswell, 1936). These interests refer not only to competition for economic development but also for quality of life under the heading of growth management.

In this discussion of land use management policy, I proceed in the following manner. First, I begin by describing the history and evolution of American land use planning activities and policies throughout the XX century. Next, I succinctly describe the land use policy tools employed over the years and the context in which they have been used. In the core of the paper, I apply a transaction cost theory to explain the relationship between states and localities in terms of economic and political transaction costs. I conclude with some suggestions regarding hypothesis and future theory testing.

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Historical Perspective on Land Use Management

The historical roots of American land use planning can be traced back to the early twentieth century when planning commissions were created throughout the country, zoning began, and the planning profession was established through the American City Planning Institute founded in 1917 (Catanese, 1979). Triggered by the Reform movement, the professionalization of planners as technicians had a significant impact in local government practices, making planning and land use regulation widely accepted functions and brought about zoning as a new planning tool (Palen, 1992).

The first comprehensive zoning ordinance was adopted in 1916 by the city of New York, regulating the use of land and the bulk and height of its buildings. The first piece of federal legislation was the Standard State Zoning Enabling Act (1922), which allowed states to grant zoning powers to cities. In 1926 the constitutionality of zoning was debated and upheld in the *Euclid v. Ambler Realty* case, contributing to make zoning practices widespread (Catanese, 1979). The most significant and immediate impact of zoning regulations was allowing jurisdictions to plan and adjust new residential development to street design and service delivery (Schiffman, 1989).

For many years zoning was the dominant form of land use control in the United States. Local land use regulation originated in the 1920s and 1930s consisted of zoning agencies and ordinances but, in many cases, lacked enforcement. This was especially true of rural areas, where the traditional American values of individualism and pursuit of wealth were still dominant (Popper, 1988) and collided with long-term uses and productivity of the land as well as values of equity, ecology, and aesthetics (Wandesforde-Smith, 1990). With the adoption of zoning practices, the local market was

no longer purely free, but the decisions were still made in a context of a competitive market for land use.

During the 1930s, national planning appears in the context of the New Deal, with the National Resources Planning Board as the federal agency in charge of incentivating states to create state planning agencies. This top down approach to planning had conditions to be successful given the amount of intergovernmental coordination, but failed when the state planning agencies were converted into wartime emergency boards focused on the conservation of scarce resources (Catanese, 1979).

In the post-war years the emphasis upon economic development shifted the planning initiatives from the national to the states and, especially to the local level. Soon, however, the local initiatives became dependent upon the federal government for financial assistance, particularly, in urban renewal and housing programs. The National Housing Acts of 1949 and 1954 and the Section 701 program are examples of this top-down approach to land use management and illustrates a situation where urban planning becomes a response to federal incentives instead of a response to local needs (Catanese, 1979).

This state of affairs begins to change in the 1960s as a result of the expansion in size of new public and private development projects and the creation of the interstate highway system. It became apparent that local regulation was insufficient to deal with new challenges ensuing from this building frenzy, such as urban sprawl, strip development, pollution by industrial facilities, and development of environmentally sensitive lands.

In a context where the impacts became extra-local, intervention by upper levels of government was deemed as necessary and was pushed to the forefront of the agenda by a

coalition of environmentalists, city planners, land use lawyers, state and federal officials, progressive businesses and developers, and citizen activists (Popper, 1988). This movement, known as the "quiet revolution", took its name from an influential book by Bosselman and Callies entitled *The Quiet Revolution in Land Use Control* (1972).

Patterns of Intergovernmental Relationships

Interestingly, state level regulation and intervention is partly a consequence of local level government failures. Local zoning practices are often accused of artificially generating higher housing prices. Unable to convince local officials of the relevance of their claims, interest groups advocating affordable housing resorted to expand the scope of conflict by convincing the governor and the legislature of the state of California of the nefarious consequences of the implementation of growth controls (Schattschneider, 1975; Schiffman, 1989). This change in policy venue (Baumgartner and Jones, 1993), from the local to the state level of government, is triggered by the avoidance on the part of local officials of redistributive issues (Peterson, 1981). On the other hand, state actions on growth management issues are resisted by local authorities and local interests on the grounds that it reduces their autonomy and choice in dealing with growth and forces developers to build in certain areas (Schiffman, 1989).

The failure of local markets to provide efficient growth patterns has three components. First, negative externalities affected the quality of life in the community in question. Second, the harmful consequences of growth affected neighboring communities creating the need for coordination of efforts in order to reduce these spillovers and

encourage orderly growth. Third, information asymmetries prevail in local housing and homebuilding markets justifying intervention through state regulations.

In the 1970s the Federal government begins to exert pressure over state governments in order to make them enact land use regulations (Chapin and Kaiser, 1985). Several pieces of legislation were enacted with clear land use implications. The 1972 Coastal Zone Management Act allowed the U.S. Department of Commerce to allocate grants to states in the value of $16 million a year to plan and regulate coastal development (Popper, 1988). Through the 1970 Clean Air Act, the 1972 Clean Water Act, and the 1974 Safe Drinking Water Act, the EPA pressured states to adopt controls over the intensity of industrial, retail, and recreational developments which have impacts in air and water pollution (non point sources) (Chapin and Kaiser, 1985).

State governments established mandatory review of local government decisions and assume powers allowing them to overturn those decisions (Mazmanian and Morell, 1990). Some states starting with Vermont (1970) and Florida (1972) adopted a series of state laws requiring comprehensive local plans, while other states in the northeast, upper Midwest, and far west adopted environmentally-oriented state land use laws (Popper, 1988).

Bollens (1992) argues that this first pattern of intergovernmental relationships can be best described as preemptive and regulatory. Hawai (1961), Vermont (1970) and Florida and California (1972) are examples of state programs with direct preemption of local authority and/or repeal power over all local decisions with extra-local impacts. At the time, state intervention was best characterized as growth restrictive rather than growth accommodating. While before the 1970s the locus of growth management was the local

government, by the beginning of the decade this policy area was more centralized then ever before and after.

The peak of the "quiet revolution" was reached in 1974 with the National Land Use Policy Act, a national extension of the state comprehensive laws already in place and applied to all large developments, approved in the Senate by a large majority, but rejected by the House of Representatives (Popper, 1988).

During the 1970s the objectives involved in growth management policies have expanded and so have the tools or instruments used to enact these policies. Environmental concerns, slow growth in fast growing areas, control of urban sprawl, traffic congestion, pollution, increased crime, decrease in quality of life became some of the stated or unstated goals of growth management policy.

Throughout the second half of the 1970s and the 1980s, however, we witnessed a decline in the enforcement of centralized land use regulation. Several factors can be pointed to this trend such as sluggish economic growth, increased public distrust in government triggered by the resurgence of conservatism in the Reagan years, and crisis in the public finances. During this period, the same issues regarding implementation that previously had affected local regulation also plagued the new centralized regulation, namely poor monitoring and enforcement (DeGrove, 1984; Popper, 1988).

In spite of this resistance to state legislation, planning laws were put forth in some states – Florida, California, Oregon, Washington, and North Carolina – with more delicate ecosystems, and more prone to natural catastrophes such as earthquakes, hurricanes, or flooding. Nevertheless, the difference in approaches is so large that it requires a great deal of effort to code these state growth management laws.

During the second half of the 1970s, the diversity of intergovernmental strategies increased, with a clear emphasis placed upon increasing decentralization. This shift in the trend of state-local relationships was characterized by expanded goals in growth management. Besides environmental protection, growth management should also address economic development, infrastructure, and quality of life goals (Bollens, 1992). This author divides the growth plans resulting from this second wave in two groups: conjoint planning and cooperative planning.

Conjoint plans are characterized by top-down implementation, with local governments expected to adopt growth management plans consistent with state goals or standards. The enforcement of these goals/standards is achieved through penalties and mandates such as the withdrawal of state funding and revocation of local discretionary powers. The best examples of state-local conjoint planning are Oregon (1973), California (1976), Hawaii (1978), Florida (1985), Rhode Island (1988), and Washington (1990).

Cooperative planning is a form of bottom-up decision-making and implementation. Consistency with state goals and standards is stimulated by incentives to local governments such as state funding, technical assistance, and the concession of local discretionary powers (Bollens, 1992).

The decision of the states to manage growth was made based on the need to correct local market failures such as negative externalities, information asymmetries, and collective action problems. In addition, reasons other than efficiency can be added to justify growth management including distributional goals and values, such as the provision of affordable housing to low-income families.

The shift in the characteristics of the state-local relationships can be attributed to an attempt to minimize transaction costs. First, when full decentralization of decisions and implementation made it difficult to address extra-local impacts of growth, state intervention became necessary. Second, the form of state and regional intervention is a trial-and-error process. States and regions began by adopting preemptive strategies. Soon they discover the inadequacy of preemption to deal with problems exclusively local. Moreover, preemptive regulation triggers a pattern of adversarial relations between states and localities, which leads to less than efficient results in growth management.

Currently, like many other policy areas, land use management is essentially a state and local government affair. State intervention is usually confined to one or more of three areas (deHaven Smith, 1984): regulation of particular types of development, regulation of particular types of geographical areas, and mandated planning to control local zoning. More importantly, states provide the framework to local policy choices. States growth management systems influence and require changes to be implemented at the local level. These systems help local governments to communicate among each other, reach intergovernmental agreements, and share costs of economic development and growth (Cogan, 1994).

The instruments used include regulatory tools such as zoning, transfer of development rights, or low density agricultural designations, direct or indirect expenditures by government such as land trusts, tax incentives, or tax programs, a wide range of public service provision to guide development including urban service boundaries, point-based permit systems, population caps, and moratoria on building permits, and expansion of local government revenues through impact fees, user fees, and special assessments

(Smith, 1993). The following section provides an overview of these policy instruments and the context of their adoption.

Land Use Policy Instruments

There are two types of land use policy tools. The first generation of policies includes zoning, restrictions on housing supply, and population caps. Zoning was the first land use instrument to be put in practice by local governments. The rationale for the use of this regulatory tool was the presence of negative externalities resulting from conflicting uses of neighboring sites. In particular, zoning was employed to minimize negative externalities by assuring that incompatible uses were avoided and overintensive uses of one site infringed on the well-being of neighboring sites (Heilbrun, 1987).

Until the early 1970s, restrictions on building permits issued and imposition of growth moratoria were quite frequent. Soon, however, this type of land use controls was proved, both theoretically (O'Sullivan, 1996) and empirically (Black and Hoben, 1985; Dowall, 1980; 1981; Schwartz, Hansen, and Green, 1981), to have inflationary effects driving up the price of new housing.

The second generation encompasses development impact fees, standardized levels of service, and comprehensive planning including residential, commercial, and industrial development restrictions (Navarro and Carson, 1991).

Schiffman (1989) divides this second generation of growth policies in two groups. The first one located in the 1950s where open space and agricultural zoning, architectural review, floodplain zoning, billboard controls, cluster design, planned unit development, and phased growth ordinances are the "new" techniques used to cope with "new" goals

such as watershed protection, landmarks designation, historic preservation, open space, aesthetics, and timing of development. This group of policies consists in more sensitive and flexible tools available to local decision makers and increased their discretion in establishing the conditions under which development takes place.

The second group appearing in the 1970s consists of impact fees, tax-exempt bonds, transfer of development rights, linkage policies, and incentive zoning (density bonuses). These instruments of land use management appear in a context of refusal by the federal and state governments to continue to provide support for growth infrastructure and of financial stress among local governments incapable of supplying it. The greatest step to the use of growth management tools to finance infrastructure was *Golden v. Planning Board of Town of Ramapo* (1972) through which development was made conditional on the developer payment for improvements the city is unable or unwilling to provide (Schiffman, 1989).

Whereas the first generation of policies emphasized growth controls, the second highlights growth management. Although one may expect much overlap between the individuals and groups supporting both types of policy, it is clear that some major differences exist. The large increase in the adoption of land use management tools seems to have sparked conflicts not only because the combination of certain tools maybe redundant, but also because some instruments may cancel each other out (Smith, 1993). The author mentions two situations where the opposition of goals is both visible and frequent: the achievement of environmental goals often conflicts with the fiscal needs of the community and the requirement of minimum densities contradicts zoning to control negative externalities.

Despite these problems, the expansion of the land use manager toolbox is helpful because it allows the use of instruments tailored to each community's needs and reduces the use of inappropriate or blunt tools in land use as it occurred in the past.

Finally, the understanding of conflicting goals in land use policy explains the use of such diverse set of instruments. Since the individuals and groups involved in this policy area have conflicting interests, it is reasonable to expect that state and local officials will respond to specific tools to achieve each specific goal.

The following section addresses the choice of policy instruments using a political economy approach. Using transaction cost concepts, I explain why two levels of government – state and local – are involved in this policy area. Next I discuss the uses and impacts of the diverse land use policy tools from an economic efficiency perspective and in an effort to minimize economic transaction costs. Thirdly, I justify the adoption of land use policy tools even when it is not economically efficient as an attempt by state and local officials to minimize political transaction costs incurred in dealing with contradictory goals among their constituencies.

The Political Economy of Land Use Management

The justification for land use management is relevant for the analysis for several reasons. First, economic transaction costs – negative externalities and information asymmetry – affect the efficient functioning of the land use market. Second, communities have different attitudes and preferences regarding growth and, for that reason, will choose policies and regulations consistent with those preferences. Third, when a state enacts a mandate regarding growth management, the characteristics of the mandate will influence

the degree to which each locality complies with the mandate or engages in circumventing it.

The goal of this section is to present the political economy of the policy tools at the disposal of state and local officials when adopting and implementing land use management policy. Contrary to what occurs with solid waste policy instruments, the growth management tools are numerous and difficult categorize. In spite of these difficulties, in the next two sections, I attempt to grasp at the economic and political implications of land use policy choices without the intention of being exhaustive in my discussion..

Land Use Management as a Production Technology Choice

Economically, when facing decisions regarding growth, state and local officials would choose the alternative or combination of alternatives that maximizes the benefits of the median taxpayer at the least cost. The question then becomes what are the benefits and costs of growth management. In a perfect market system, decisions made by citizens and businesses will result in a Pareto efficient allocation of land uses so that government intervention through land use regulation is not necessary since it alters competitive market choices.

In practice, however, the local market for land use rarely works efficiently making it necessary for state governments to correct market failures (negative externalities, information asymmetries, among others) plaguing local market allocations.

State Government Regulation and Allocational Efficiency

Healy and Rosenberg (1979) identified four major reasons that justify state intervention: interjurisdictional spillovers, local interests diverging from general public interest, problems in geographical areas not subjected to local control, and difficulties arising in the implementation of state policies and state investments.

Interjurisdictional spillovers are generally considered economically sound reasons for state level interventions because inefficient allocations result when one locality's land use policy hinders the policy activities of neighboring localities (Healy and Rosenberg, 1979). It can be argued that, in certain instances, it is possible for localities to reach informal agreements in the tradition of the Coase solution to externalities (Coase, 1960). However, this solution is only viable in a small numbers and short-term context. As transaction costs increase, a hierarchical solution via state regulation may be the necessary way to curtail externalities of growth and growth itself as a spillover.

State regulation is also justified when local interests do not coincide with the interests of the median taxpayer. If the total welfare derived by noncitizens from experiencing the wildlife in a given locality exceeds the total welfare of the citizens of that community derived from its land use policy then state action is acceptable on efficiency grounds[1]. The reason for this being that the increase in land prices that land use controls generates captures the true social cost of consumption of the scarce resources (Goldberg and Chinloy, 1984).

In contrast with urban areas, many rural areas lack land use regulation in many cases due to the lack of resources and small local government size that renders impossible a

[1] Although this situation is not strictly Pareto efficient, it is, at least, a Pareto improvement move.

proper analysis of costs and benefits of large scale development projects. This fact justifies the intervention of state governments, frequently requiring environmental impact assessments or evaluation of developments of regional impact, which can only be made by a professional staff with proper means of enforcement (Healy and Rosenberg, 1979).

Finally, it is crucial to highlight that state government decision-making and implementation of policies in areas other than land use management may have indirect impacts in this policy area. These policy spillovers can be exemplified by state investments in the highway system which alter the value and potential uses of a given parcel of land and hence the rate of local growth (Healy and Rosenberg, 1979). Ultimately, state land use regulation might be needed to correct inefficiencies generated by actions in other policy areas.

The four reasons discussed here and by Healy and Rosenberg (1979) are justifications for state land use regulation and intervention on allocational efficiency grounds. As we shall see later, state intervention is often justified on distributional equity grounds (Goldberg and Chinloy, 1984; Weimer and Vining, 1999). In the remainder of this section, however, I address the economic consequences of the use of land use policy instruments.

Economic Impact of Land Use Management Tools

One of the most commonly discussed consequences of land use management is precisely its impact on housing prices and economic development. There is large consensus among authors that "first generation" growth controls such as zoning practices (Navarro and Carson, 1991) raise housing prices by reducing the supply of land or its

developmental potential (Dowall, 1981; Schwartz, Hansen, and Green, 1981; Denzau and Weingast, 1982; Engle, Navarro, and Carson, 1992).

Using a comparative quasi-experimental design, Schwartz, Hansen, and Green (1981) found housing price increases in Petaluma, California as a result of the city's comprehensive growth management plan imposing controls on the number, location, and type of housing units. Landis (1986) argued that restrictions on the supply of developable land generate local markets controlled by local homebuilders operating less efficiently and capturing monopoly rents. As the author suggests, even the perception that not enough parcels of developable land are supplied leads to market speculation and significant increases in housing and land prices.

In a study of 30 metropolitan areas, Black and Hoben (1985) concluded that the restrictiveness of growth controls is positively associated with land and housing prices. Significantly, policies that direct the amount, type, location, and timing of private development are likely to affect directly the supply of developable land and indirectly the demand leading to price inflation.

Pollakowski and Wachter (1990) estimated the direct and spillover effects of zoning controls on housing prices concluding that land use regulations raise housing and developed land prices within a locality. They modeled interjurisdictional effects and found that when zoning restrictiveness increases in adjacent areas, the housing prices in the area under analysis also increase due to a spillover demand effect. The exception occurs when, due to amenity effects, the adjacent area captures the full demand, leaving the prices unchanged in the area under analysis (see also Landis, 1992).

A study focusing on local growth controls in seven midsize California cities contradicts previous empirical evidence (Landis, 1992). The author presents three explanations for these findings. First, it is possible that the growth controls enacted are ineffective and, in that case, fail to act as constraints on the supply of land or housing or as stimulators of demand. Second, spillover demand can be accommodated in nearby communities avoiding price increases in the community under analysis by diminishing demand pressures. Finally, the effect of growth controls on land and housing prices may be small system wide. In other words, housing prices may be more sensitive to other factors affecting the whole region such as interest rates, job growth, and housing supply constraints.

The second generation of growth controls is essentially directed at sustaining the quality of life in a community by adding costs to development through impact fees or environmental impact statements. Growth is accepted if the new residents pay for the public facilities and infrastructure required by the development and if pollution, traffic congestion, and school overcrowding levels are kept low (Navarro and Carson, 1991). These growth management tools inflate housing prices from the demand side by increasing the quality of life in a community and attracting larger demand to the jurisdiction where they are enacted.

As it has been proven empirically, development impact fees also inflate lot and housing prices from the supply side (Skaburskis and Qadeer, 1992; Singell and Lillydahl, 1990). Skaburskis and Qadeer (1992) found that lot prices in three Toronto suburban municipalities increased by an amount 20 percent greater than the development impact fee imposed. The authors argue that the expectation of increases in the value of impact

fees leads to early conversion thereby reducing land and housing prices. This last finding points to the effects of increased transaction costs (uncertainty) upon local housing and growth markets. More dramatic price effects were found by Singell and Lillydahl (1990) in their study of impact fee adoption in Loveland, Colorado. The empirical evidence indicates that an increase in impact fees of $1,182 led to an increase in the price of new houses of $4,500 immediately after the adoption and, nine months later, to an increase of $3,300. More importantly, buyers of new houses rather than developers or landowners, support the price increases.

Empirical evidence also supports the idea that growth management regulation hinders economic development. Feiock (1994) found that the implementation of concurrency regulations in Florida counties had a significant negative impact on building permits. In another study, Denslow, O' Dell, and Shermyen (1993) found that construction jobs and estimated housing starts fell more in counties adopting comprehensive plans earlier than others adopting later. In particular, an additional year of comprehensive plan was linked with seven percentage points lower employment in construction and about eleven percentage points lower estimated housing starts.

The summary of the economic consequences of land use management tools allows us to recognize the implications for the land market involved in their adoption. Economically, land use managers would choose the alternative(s) that maximizes the benefits of the median taxpayer at the least cost. The discussion of the economic impacts of these policy tools indicates possible (re)distributive effects in their adoption and implementation and justifies the next step: an analysis of the goals and interests underlying each land use policy. For a better understanding, the next section addresses

the actors involved in this policy area and their impact in making their preferences prevail.

Land Use Management Policy Tools as Consumption Goods

All the land use management tools have an economic side that frames their choice and implementation. However, land use policies are not based in economic efficiency alone, but are largely influenced by different actors' preferences at the national, state, and local levels. Because land use management serves different goals, it is understandable that preferences for their use will vary across different groups, with policy tools becoming consumption goods.

In the enactment of land use management tools, a large number of goals are usually mentioned including combat of urban sprawl and loss of farmland, protect the natural and visual environment, defense of the interests of existing residents by securing homogeneity in the community and steady increase in property values, increase the provision of affordable housing, and preserve local fiscal health (Healy and Rosenberg, 1979; Smith, 1993). Many of these goals are clearly distributive since the benefits tend to be concentrated on a small number of local actors, usually homeowners, developers, and contractors, among others, at the expense of potential incomers. As we go through several growth management tools it is possible to highlight these distributive consequences.

Policy and Ideological Preferences

Traditionally, conservatives have been associated with less government regulation and have been know for, in many cases, distrusting government intervention altogether. Nevertheless, even individuals with strong conservative ideological preferences would agree that some kind of legislation is necessary. All else equal, however, they would prefer government intervention at the local level, which would be considered less intrusive to individual choice. Moreover, they would be more likely to prefer land use management instruments that potentially can expand local market choices, such as incentive zoning[2] and transfer of development rights (Kayden, 1992) to command-and-control regulation.

Since the conservatives emphasize local level choice, it is reasonable to expect that they would oppose any type of state centralized regulation. An intuitive argument for this hypothesis is provided by comparing the map of the electoral college of the 2000 election with the map of states with growth management plans. Historically conservative states such as the Central Plains, Far West and Southern states do not have state growth management plans. Texas growth management plan is the least strict of the country and the only exception is, obviously, Florida, a true outlier in this regard. On the contrary, more liberal states, such as Pacific Coast and New England states have growth management plans.

In general, liberals are more supportive of environmental concerns, social services, and government spending. These three reasons combined allow us to hypothesize that more liberal citizens and communities will support land use controls which further these

[2] The support of incentive zoning, however, might be dependent upon the services rendered by the developer.

objectives such as open space zoning, mixed-use development, cluster development, or zoning variance allowing higher densities.

Additionally, liberals prefer comprehensive land use regulation even though conservatives are likely to support it if high-powered incentives (reelection) are present. However, the perceived benefits from managing land use accruing to a community depend on its socioeconomic and professional composition. For this reason, elected officials on both sides are expected to incur in ideological costs, especially conservative officials in liberal communities and vice-versa.

Finally, it is worth mentioning that the ideological split argument along the lines of market based regulatory approaches supported by conservatives and command-and-control regulation defended by liberals is not new (Kayden, 1992), but should be the object of empirical testing.

Political Benefits

As it occurs in other policy areas, land use management also involves conflicts of interests between opposing views and interests. The decisions of state legislators and local officials reflect the balance of the conflicting interests within this policy field and, in general, will respond to the pressures exerted in the context of decision-making. Several examples of land use controls adoption should make this point more clear.

The oldest and best-known type of land use control – zoning – has been accused, over the years, of having highly political and distributive impacts. The manipulation of zoning regulations can produce exclusion of low and moderate income in wealthy suburban towns. This can be achieved either by zoning a community for single family housing only

and/or requiring a large building lot for new houses (Heilbrun, 1987; see also O'Sullivan, 1996).

Three main reasons are commonly pointed out to the practice of exclusionary zoning (Heilbrun, 1987). First, in-coming citizens are not able to fully pay for the service costs they impose on the community and, hence, are considered undesirable from a fiscal point of view. Second, families move to suburban areas to avoid the typical problems of the city and enjoy suburban amenities. In this line of reasoning, they will oppose any type of growth that can threaten their quality of life. Exclusionary zoning along with building and population caps is an effective land use controls in accomplishing this goal. Finally, zoning can be used to prevent race and socioeconomic class integration under the argument that an increase in the number of racial and economic minorities will increase a community's crime and delinquency. These three major reasons allow us to understand why local officials may have strong incentives to support or oppose local land use controls in general and zoning in particular.

In addition to these political/distributive issues, zoning variances also contribute to this departure from economic efficiency. Zoning variances are changes in the rules of the game which create winners and losers that might be different from the ones under the previous set of rules. This occurs when developers lobby for and receive from local governments a zoning variance that breaks with previously established restrictions. Who wins and who loses depends on what were the restrictions in place. Environmental interests loose when variances are issued for open space zoning areas. Suburban white upper class citizens loose when variances are issued allowing higher densities in areas previously subject to fiscal zoning, large lot zoning, or building caps.

Another case of land use controls with distributive consequences similar to zoning ordinances is impact development fees. Impact fees and system development charges have been called regressive due to the fact that the amount charged is fixed, becoming a larger burden on those with less ability to pay (Nelson, 1995; Snyder and Stegman, 1987). However, the criteria in which the impact fee is based can influence the degree of regressivity. Empirical work in Palm Beach County, Florida, showed that when the fee is established having the type of residency as the basis, it will be highly regressive, but if the criteria is residential unit size, then fees become proportional, with the number of bedrooms being an intermediate criteria (Nicholas, 1992).

In a competitive market, the burden of the fee falls on consumers (increase in housing prices) and landowners (decrease in land prices) (O'Sullivan, 1996) producing distributive consequences by excluding moderate and low-income families from the jurisdiction (Nelson, 1995). In municipalities where moderate and low-income families prevail, it is less likely to witness the adoption of impact fees. The opposite might occur in wealthier communities, where exclusion of these groups might be achieved through the implementation of this land use instrument. Either way, the decision regarding land use policies rests primarily in the hands of local officials concerned with the maximization of their political goals. This fact is particularly real in the case of impact fees, with local officials focusing attention upon the preferences of existing residents (voters) and new comers having little to say on the adoption of this land use management tool (Beatley, 1988; Nelson, 1995).

Different goals and interests are involved in the adoption and implementation of density bonuses. This land use tool, also known as incentive zoning, allows private

developers to buy certain existing zoning restrictions from the municipality in exchange for the provision of social equipment such as affordable housing, day care centers, and job training (Kayden, 1992; Rubin, Seneca, and Stotsky, 1990; Schiffman, 1989). Local officials are more likely to support the adoption of this land use management tool in more diverse, highly dense, and less wealthy communities because the opposition to these initiatives is less likely[3].

The examples provided of the political benefits available to government officials in exchange for land use controls adoption are not, by any means, unique or representative. The discussion was conducted in order to illustrate the political implications of each policy instrument choice. Next, I proceed in a similar manner regarding the socioeconomic and demographic factors affecting the supply of policy tools.

Socio-economic Factors Affecting Supply

The literature describes growth controls as exclusionary (Navarro and Carson, 1991), elitist (Logan, 1976), and status-biased (Bollens, 1990; Donovan and Neiman, 1992). The social class hypothesis argues that individuals with higher income and educational attainment are more likely to support growth controls. Here, I extend this hypothesis to both states and localities by arguing that communities with higher per capita personal income and educational attainment levels are more likely to commit to land use control policies. Because land use management also focuses on amenity levels and ensuring higher quality of life, this hypothesis is valid for both the first and the second generation of growth policies.

[3] Keep in mind that even ideologically conservative officials are likely to support incentive zoning given that it works as a market incentive and not as command-and-control regulation

Past state and local growth is among one of the most relevant predictors of the adoption of growth controls/growth management policies. Although previous studies of the impact of population growth have been concentrated at the city level (Baldassare and Protash, 1982; Protash and Baldassare, 1983; Dowall, 1980), anecdotal evidence indicates that state population growth also constitutes a pressure for the adoption of growth management policies (see the case of Florida).

Growth, as well as urban complexity in terms of environmental, social, fiscal, and economic concerns increases the diversity of tools used. This hypothesis suggests that need may be one of the major causes of land use policy tools adoption. Related to this is population density. Where high densities are a problem we can expect more diverse land use instruments to be adopted.

Interest group activity is expected to influence significantly the adoption of growth controls and growth management policies. The effect of two distinct sets of interest groups should be analyzed. The first set includes developers, land speculators, builders, and mortgage financiers who generally oppose growth control/management policies. The second set involves organized groups committed to the preservation of the environment that, therefore, favor land use and growth management (Knaap, 1988).

Due to the nature of the first generation of growth policies one would expect to find race as an important predictor of the adoption of growth controls. Arguments in favor of two alternative hypotheses can be stated. On one hand states and localities with larger percentage of minorities would adopt less growth controls because these minorities are more likely to voice their concerns against exclusion through zoning or population caps. In addition, growth controls pose difficulties in terms of affordable housing by artificially

imposing constraints on the supply side which are a burden upon minorities more than upon whites. The alternative hypothesis states that, precisely because the percentage of minorities is larger, there would be more pressure from whites for the adoption of growth controls by the state or local community.

The effect of race on growth management decisions, however, is less obvious. Growth management may be exclusionary of new entrants, but this exclusion is not so much based upon race as it is upon the ability of these new entrants to pay for the development they entail for the state or community.

Growth control policies adopted until and during the 1970s were largely the result of the capacity of local elites to mobilize to stop growth, either through zoning or through population and housing caps. For this reason, we should expect that states and localities are more likely to adopt growth controls if characterized by a participatory political culture and proactive neighborhood associations.

Intergovernmental Factors

The choice of growth management instruments is determined not only by the characteristics of local officials as suppliers and local socio-economic forces but also constrained by state level rules. An important point to be made is that state laws regarding both growth policy and solid waste policy define the powers of local governments and affect local development, taxes, services, and exclusion (Burns, 1994). In the case of growth management this is particularly relevant because states moved, over the years, from a relatively decentralized and self-regulatory set of state land use policies during the 1960s toward more regulatory, centralized, and comprehensive set of growth

management policies and plans. This hypothesis is presented in the literature (Knaap, 1988; Navarro and Carson, 1991) but backed up by less than systematic evidence.

Moreover, state land use regulation displays enough diversity that justifies the analysis of local level practices both within a state and between (across) states. The question of "what" states regulate was the object of discussion by Healy and Rosenberg (1979). The work of these authors identifies five major topics of state regulation: areas of critical concern, open or unzoned lands, developments of regional impact, land uses affecting public investments, and developments of regional benefit.

Any empirical study regarding local land use practices cannot ignore these state interventions. In the remainder of this section, I propose some tentative hypotheses to explain state land use regulation.

First, the areas of critical concern include, most likely, coastal zones, wilderness and forest areas, and wetlands. States with more miles of coastal areas and larger percentage of forest land are more likely to be concerned with adopting comprehensive state land use statutes so as to preserve these areas.

Secondly, after controlling for other variables, it is plausible that states with larger percentage of urban and developed land are less likely to adopt legislation to manage open or unzoned lands. In other words, when the percentage of urbanized and developed land is high, local governments are likely to have land use controls already in place making state legislation less needed.

Thirdly, the size and number of developments of regional impact is likely to affect a state's decision to directly regulate land use. The number of large commercial and

industrial developments can be seen as an indicator of the developments of regional impact variable.

Fourth, states may also wish to control growth in order to minimize demands or protect existing public infrastructures (Healy and Rosenberg, 1979). The rate of growth of the state should be a good predictor of the likelihood of state actions regarding land use.

Fifth and lastly, certain capital projects are rejected by local communities as bringing unwanted impacts but are necessary from the perspective of the region as a whole. In these cases we are likely to see state land use interventions as a way of accommodating regional needs.

Besides these five factors that may trigger state land use regulation, one can expect that states will also deal with specific problems requiring contextual approaches. More importantly, state land use legislation is likely to constrain or direct local land use activities and should be taken into account when analyzing local land use policies.

Implications for Future Research

Given the evolution in the relationship between states and their local governments, it is important to examine systematically the determinants of state and local actions. Future research cannot ignore the intergovernmental link and should address the supply of land use policy tools by state and local level officials by describing their ideological preferences regarding growth policy, the political benefits accrued, opportunity costs encountered, and socio-economic factors affecting supply.

The main obstacle facing this project is the lack of compiled and readily available measures of state and local land use controls. As previously mentioned the choice of land use management tools can be reduced to two major categories - command-and-control regulation and market-based regulatory approaches (Kayden, 1992) – but the difficulty in allocating land use controls to each of these categories or place them along a continuum still remains.

At the state level, the best approach might be to identify state regulation addressing each of the five major areas mentioned by Healy and Rosenberg (1979) and create an index of state land use regulation stringency. At the local level, given the number and diversity of land use controls, national and state surveys of local governments should concentrate upon the policy tools most frequently adopted.

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